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Slump in earth near West Valley trenches being monitored

This Buffalo & Pittsburgh Railroad train hauls containers of dirt last week from a trench at the West Valley Demonstration Project to an approved disposal site.

Rick Miller/Olean Times Herald

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The New York State Energy Research and Development Authority is closely monitoring a 3-foot slump in the earth near the state's low-level radioactive waste disposal area adjacent to the West Valley Demonstration Project.

Andrea Mellon of NYSERDA told members of the West Valley Citizens Task Force Wednesday night that cracks began to develop along the North Slope overlooking Erdman Brook in 2018.

The cracks were filled and the area was monitored regularly. Then, in October, the earth slumped about 18 inches on the downslope portion of the north slope. Monitoring was stepped up.

When the area was measured in November, the slump had increased to about 3 feet, Mellon said. There's been no movement spotted at the top of the slope. Weekly monitoring is now being conducted.

NYSERDA believes the slump is limited to loose soil pushed over the slope during construction of trenches of low-level radioactive waste in the 1960s and 1970s.

Mellon also pointed out that NYSERDA recently completed improvements to the membrane covering the trenches and water diversion measures designed to keep leachate from gathering in the trenches.

Citizens Task Force member Joe Pati expressed concern over the slide — particularly in light of an increased number of extreme weather events. Many slopes in the West Valley area are prone to failure in heavy rains.

Mellon said that NYSERDA is hiring a soil specialist to do an investigation to help determine what is causing the slump. The slope is about 100 feet from the nearest trench.

“Erosion is going to happen,” Pati said during the meeting held via video conference. “The soils are going to slump.” He said he wants to make sure a sudden localized rain event didn’t breach any of the trenches.

Later, Pati said, “In my heart I think we should exhume it all. Is it feasible? I don’t know. In 50 years there’s already been some slumping.”

Besides the state and Nuclear Regulatory Commission low-level waste trenches, there are issues involving underground tanks that once held 600,000 gallons of high-level radioactive liquid waste. The waste has since been processed and is contained in 275 glass logs stored in 10-foot-high stainless steel containers. The steel containers are in concrete overpack containers stored on site.

There have been proposals to leave the tanks in place and fill them with grout. Others point out that with the site’s history with heavy rains and erosion, the tanks would eventually be compromised.

Most all of the task force members are believed to favor exhumation and removal of all wastes and tanks including the NYSERDA and NRC low-level burial sites.

The U.S. Department of Energy and NYSERDA are working toward release of a draft Supplemental Environmental Impact Statement (SEIS) in about two years for Phase II of the cleanup.

Task force member Ray Vaughan and several other members of the task force have a working group looking into a number of issues concerning a probabilistic study of erosion at the WVDP site over the centuries if the radioactive material remains in the ground.

Vaughan asked whether the Department of Energy and NYSERDA would help fund some independent expert review on a number of issues including erosion, climate change, long-term stability of the site, legacy waste, high-level waste and defense waste.

Vaughan included a list of tasks where the working group thought input from experts would help them in their decision whether to support the draft SEIS for the Phase II cleanup. His 100-page letter was not made public. The task force will discuss whether to release it after its January meeting.

Pati expressed concern over a parallel study by the task force, but agreed Vaughan’s working group should continue it work. He asked whether the task force was wasting time or assuming they (DOE) will try to leave it behind (trenches).

Vaughan said outside experts could help the task force sort out what they may think is a faulty decision by DOE officials.

“We need to get them on the right road,” agreed Pati. The range of options includes the remove everything alternative and close in place alternative, he added.

Paul Bembia, the NYSERDA site director, said hybrid alternatives are being examined such as removing certain trenches, or parts of trenches. The trenches were about 20 feet wide and nearly as deep.

Pati said torrential rain causes “a vast amount of water coming off the hills.”

“That’s the driver for this,” replied Vaughan.

Meanwhile, Kelly Wooly, deputy director of CHBWV, the contractor for the Phase I cleanup, said decommissioning continues inside the Main Plant Process Building. In one cell, liquid nitrogen is being used to remove the radioactive concrete surface.

The demolition of the Main Plant Process Building is scheduled to begin in March. Crews have tested a water management system to remove water from the spray devices that will be used to reduce dust — some of which could contain radioactive material.

Crews have worked for the past 20 years removing hazardous materials like asbestos and radioactive equipment from the plant and shipping it to approved facilities. There are still a couple of cells where crews are working on the decommissioning prior to the planned demolition.

Wooly said the soil excavated years ago to install trench for a permeable treatment wall with material capable of intercepting a strontium plume coming from the foundation of the Main Plant Process Building is about 80% removed. It is placed in intermodal containers and placed on railcars for removal to an approved site. The excavated soil is not radioactive.